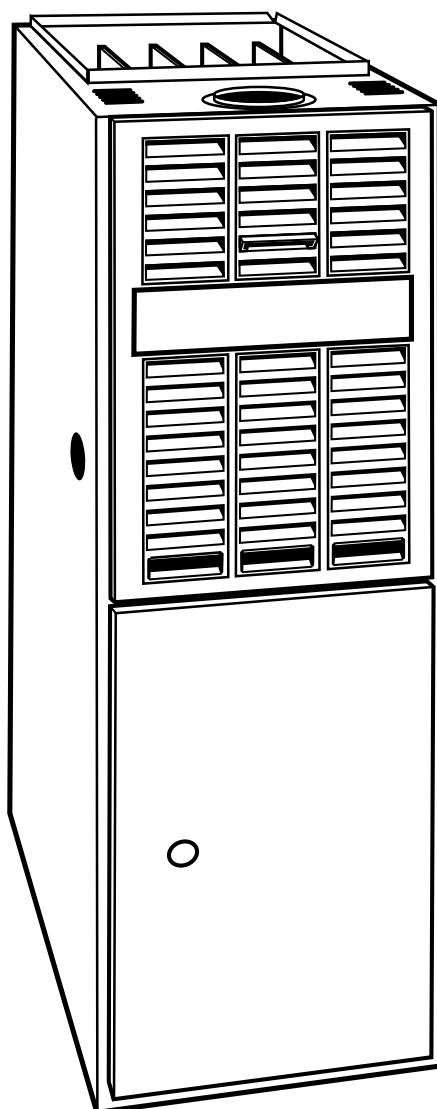




Product Data

58WAV Weathermaker® 8000 High-Efficiency Upflow Furnace

Input Capacities:
45,000 thru 155,000 Btuh



Advanced Technology for High-Efficiency Gas Furnaces

Carrier leads the industry with its new Weathermaker® 8000 Induced-Draft Gas Furnace. This furnace is built with the most advanced manufacturing equipment, processes, and technology available in order to ensure top quality. Packed into the cabinet are the industry's foremost dealer and homeowner features. The 58WAV Upflow Furnace is the newest addition to Carrier's list of product leadership in the gas furnace industry.

These induced-combustion, gas-fired furnaces offer not only low installation costs, but fuel economy as well — delivering an Annual Fuel Utilization Efficiency (AFUE) rating of 80.0%. The Carrier Weathermaker 8000 utilizes a hot surface, silicon carbide ignition system to save energy and increase reliability.

Our design uses the patented S-shaped 4-pass heat exchanger, a new soft mount inducer assembly, and a slow opening gas valve to improve sound level. The Super-S heat exchanger provides better heat transfer while enabling us to make a compact furnace. This provides more room in closet, utility room, and short basement installations. The heat exchanger is constructed of aluminized steel and is backed by a 20-year Limited Warranty.

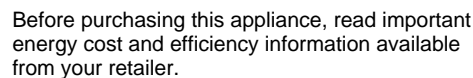
The Carrier Weathermaker 8000 Gas Furnace will meet your home heating requirements. This furnace family provides the widest range of heating capacities available.

The superior attention to cabinet detail is obvious. The Carrier Weathermaker 8000 features 1-piece, seamless, wrap-around construction.

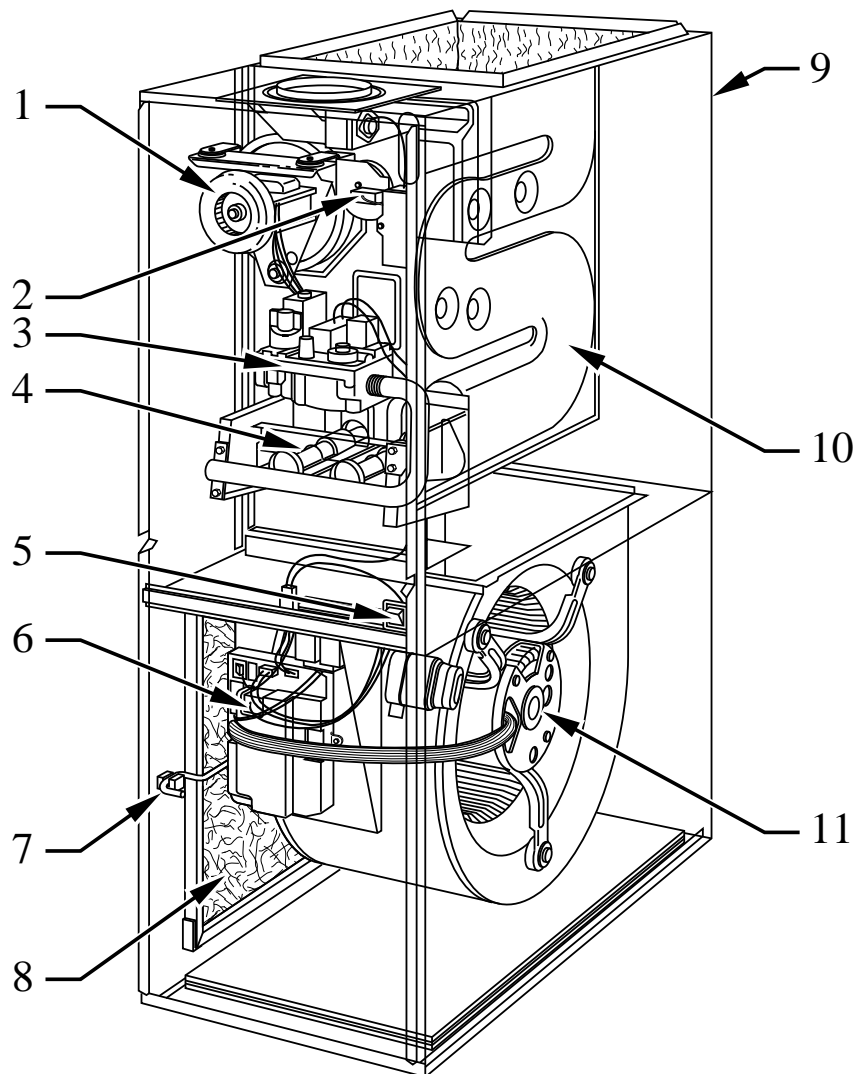
Perhaps the most advanced feature of the Weathermaker 8000 is the microprocessor control board. The simplified electronics in this control board provide high reliability while performing many of the functions of older, electro-mechanical devices in

board. Another feature on the control board is a LED status indicator light to ensure top furnace performance.

Best of all, the Carrier Weather-maker 8000 is made to be easily installed. Many features make this furnace the easy choice for replacement or new construction markets. Left and right connections are provided for gas and electrical supplies. An easy-to-remove bottom, blower speed selector, cased or uncased cooling coils, low-voltage humidifier, and electronic air cleaner terminal connections are among other features.



		58WAV	045	121	08
High-Efficiency Induced-Combustion Upflow Furnace					Cooling Size (Airflow) (400 CFM per 12,000 Btuh) 08 — 800 CFM 12 — 1200 CFM 14 — 1400 CFM 16 — 1600 CFM 20 — 2000 CFM
Input Capacity					
045 — 44,000 Btuh	111 — 110,000 Btuh				
070 — 66,000 Btuh	136 — 132,000 Btuh				
091 — 88,000 Btuh	155 — 154,000 Btuh				
					Series Number



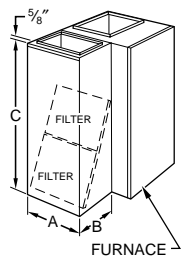
A94089

NOTE: The 58WAV Furnaces are for use with natural gas. These furnaces can be field-converted for propane gas with a factory-authorized and listed accessory conversion kit.

NOTE: Control location and actual control may be different than shown above.

- | | |
|-----------------------------|---------------------------|
| ❶ Inducer Assembly | ❷ Air Filter Retainer |
| ❷ Pressure Switch | ❸ Air Filter |
| ❸ Gas Control Valve | ❹ Wrap-Around Casing |
| ❹ Burner Assembly | ❺ Heat Exchanger |
| ❺ Blower Door Safety Switch | ❻ Blower and Blower Motor |
| ❻ Control Box | |

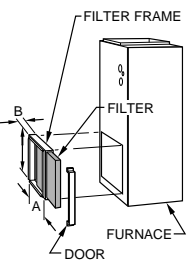
Carrier accessories*



RETURN-AIR PLENUM
A93067

Custom made return-air plenum can be mounted on either side of the furnace. Includes washable filters.

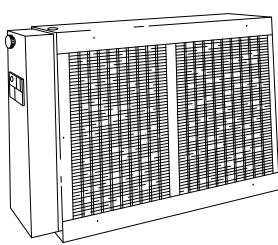
A	25 in.
B	16 in.
C	39-7/8 in.



SIDE FILTER RACK
A93068

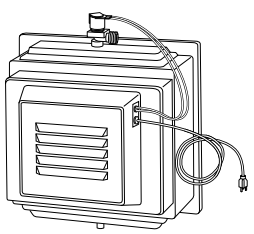
Custom made filter rack for easy connection when a return plenum already exists. Provides easy access for cleaning filter.

A	23-1/8 in.
B	2-3/8 in.
C	14-1/2 in.



MODEL 31KAX ELECTRONIC AIR CLEANER
A91465

Cleans the air of smoke, dirt, and many pollens commonly found. Saves decorating and cleaning expenses.



MODEL 49FH HUMIDIFIER
A91365

By adding moisture to winter-dry air, a Carrier humidifier can often improve the comfort and keep furniture, rugs and draperies in better condition. Moisturizing household air also helps to retain normal body heat and provides comfort at lower temperatures.

UNIT SIZE	045-08 & 12	070-08 & 12	091-14 & 16	111-12, 16 & 20	136-16 & 20	155-20
ELECTRONIC AIR CLEANER	Model 31KAX					
HUMIDIFIER	Model 49FH					
THERMOSTAT	See Master Price Pages					
RETURN-AIR PLENUM (With Washable Filters)	KGARP0101ALL					
SIDE FILTER RACK (With Washable Filter)	KGAFR0101ALL					
TWINNING KIT	KGATW0301HS†					
GAS CONVERSION KIT	Natural-To-Propane		KGANP2001ALL			
	Propane-To-Natural		KGAPN1601ALL			

* Factory authorized and field installed. Gas conversion kits are A.G.A. recognized.

† 16 and 20 sizes only.

Physical data

UNIT SIZE	045		070		091		111			136		155
	08	12	08	12	14	16	12	16	20	16	20	20
OUTPUT CAPACITY (BTUH)† Nonweatherized ICS	35,000	35,000	53,000	53,000	71,000	71,000	89,000	89,000	89,000	107,000	107,000	124,000
INPUT BTUH*	44,000	44,000	66,000	66,000	88,000	88,000	110,000	110,000	110,000	132,000	132,000	154,000
SHIPPING WEIGHT (Lb)	122	124	132	134	150	154	160	166	184	179	194	204
CERTIFIED TEMP RISE RANGE (°F)	25-55	15-45	40-70	30-60	40-70	30-60	55-85	45-75	25-55	50-80	40-70	50-80
CERTIFIED EXT STATIC PRESSURE	Heating	0.10	0.10	0.12	0.12	0.15	0.15	0.20	0.20	0.20	0.20	0.20
	Cooling	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
AIRFLOW CFM‡	Heating	855	1070	830	1175	1150	1445	1175	1415	1720	1645	1695
	Cooling	880	1270	880	1300	1335	1740	1210	1575	2210	1620	1905
LIMIT CONTROL	SPST											
HEATING BLOWER CONTROL	Solid-State Time Operation											
BURNERS (Monoport)	2	2	3	3	4	4	5	5	5	6	6	7
GAS CONNECTION SIZE	1/2-in. NPT											
GAS VALVE (Redundant) Manufacturer	White-Rodgers											
Minimum Inlet Pressure (In. wc)	4.5 (Natural Gas)											
Maximum Inlet Pressure (In. wc)	13.6 (Natural Gas)											
IGNITION DEVICE	Hot Surface											

* Gas input ratings are certified for elevations to 2000 ft. For elevations above 2000 ft, reduce ratings 4% for each 1000 ft above sea level. Refer to National Fuel Gas Code Table F4. In Canada, derate the unit 10% for elevations 2000 ft to 4500 ft above sea level.

† Capacity and AFUE in accordance with U.S. Government DOE test procedures.

‡ Air delivery above 1800 CFM requires that both sides, or a combination of 1 side and bottom, or bottom only, of the furnace be used for return air. A filter is required for each return-air supply.

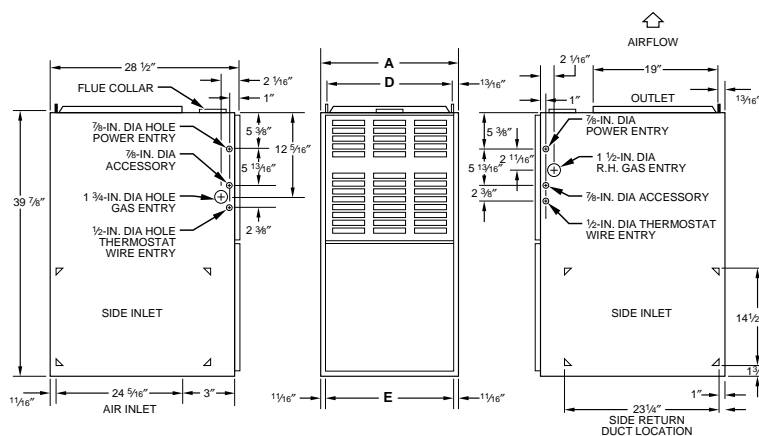
ICS—Isolated Combustion System

Dimensions

CLEARANCES (In.)

UNIT SIZE	045 AND 070	091 — 155
Sides — Single-Wall Vent	1	0
Type B-1, Double-Wall Vent	0	0
Back	0	0
Top of Plenum	1	1
Vent Connector — Single-Wall Vent	6	6
Type B-1, Double-Wall Vent	1	1
Front* Single-Wall Vent	6	6
Type B-1, Double-Wall Vent	3	3
Service	30	30

*The 3-in. front clearance is needed for combustion-air and ventilation-air entry.



NOTE: 2 additional 7/8 In. Dia knockouts are located in the top plate.

NOTES: Minimum return-air opening at furnace:

1. For 800 CFM—16-in. round or 14 1/2 x 12-in. rectangle.
2. For 1200 CFM—20-in. round or 14 1/2 x 19 1/2-in. rectangle.
3. For 1600 CFM—22-in. round or 14 1/2 x 23 1/4-in. rectangle.
4. For airflow requirements above 1800 CFM, use both side inlets, a combination of 1 side inlet and the bottom, or the bottom only.

A88367

DIMENSIONS (In.)

UNIT SIZE	A	D	E	VENT CONN*
045-08	14-3/16	12-9/16	11-11/16	4
045-12	14-3/16	12-9/16	11-11/16	4
070-08	14-3/16	12-9/16	11-11/16	4
070-12	14-3/16	12-9/16	11-11/16	4
091-14	17-1/2	15-7/8	16	4
091-16	21	19-3/8	18-1/2	4
111-12	17-1/2	15-7/8	16	4
111-16	21	19-3/8	18-1/2	4
111-20	24-1/2	22-7/8	22	4
136-16	21	19-3/8	18-1/2	5
136-20	24-1/2	22-7/8	22	5
155-20	24-1/2	22-7/8	22	5

*Refer to the furnace Installation Instructions for proper venting procedures.

Performance data

UNIT SIZE	045		070		091		111			136		155
	08	12	08	12	14	16	12	16	20	16	20	20
DIRECT-DRIVE MOTOR Hp (PSC)	1/5	1/3	1/5	1/3	1/3	1/2	1/3	1/2	3/4	1/2	3/4	3/4
MOTOR FULL LOAD AMPS	2.9	5.8	2.9	5.8	5.8	7.9	5.8	7.9	11.1	7.9	11.1	11.1
RPM (Nominal) — SPEEDS	1075-3	1075-4	1075-3	1075-4	1075-4	1075-4	1075-4	1075-4	1075-4	1075-4	1075-4	1075-4
BLOWER WHEEL DIAMETER x WIDTHS (In.)	10 x 6	10 x 6	10 x 6	10 x 6	10 x 7	10 x 8	10 x 7	10 x 8	11 x 10	10 x 8	11 x 10	11 x 10
WASHABLE 16 x 25 x 1-In. FILTER Qty	1	1	1	1	1	—	1	—	—	—	—	—
WASHABLE 20 x 25 x 1-In. FILTER Qty	—	—	—	—	—	1	—	1	—	1	—	—
WASHABLE 24 x 29 x 1-In. FILTER Qty	—	—	—	—	—	—	—	—	1	—	1	1

PSC—Permanent Split Capacitor

AIR DELIVERY—CFM (With Filter)*

UNIT SIZE	SPEED	EXTERNAL STATIC PRESSURE (in. wc)							
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8
045-08	High	1030	1005	970	925	880	815	745	615
	Med-High	855	830	800	765	720	670	595	485
	Med-Low	755	725	695	650	605	555	475	400
045-12	High	—	1485	1410	1350	1270	1180	1080	970
	Med-High	—	1375	1315	1240	1165	1095	1000	905
	Med-Low	1250	1205	1165	1120	1060	985	905	805
070-08	High	1070	1035	1010	970	930	875	805	720
070-12	High	—	1485	1430	1365	1300	1220	1140	1045
	Med-High	—	1355	1305	1260	1200	1135	1055	960
	Med-Low	1175	1170	1140	1110	1055	1005	950	860
091-14	High	1020	1015	995	970	930	885	825	745
091-16	High	1585	1540	1470	1410	1335	1220	1110	980
	Med-High	1355	1325	1280	1230	1175	1090	1015	910
	Med-Low	1150	1125	1105	1085	1035	965	895	786
091-20	High	960	950	935	910	880	815	715	580
111-12	High	2010	1950	1875	1810	1740	1660	1550	1455
	Med-High	1675	1660	1625	1600	1545	1490	1395	1295
	Med-Low	1445	1430	1415	1400	1370	1325	1265	1170
111-16	High	1260	1260	1260	1250	1210	1180	1115	1030
111-20	High	1490	1435	1370	1300	1210	1135	1020	880
	Med-High	1375	1325	1265	1195	1125	1055	945	810
	Med-Low	1205	1175	1130	1075	1025	925	830	675
136-16	High	1045	1020	1000	960	905	820	700	565
136-20	High	1880	1815	1745	1690	1575	1500	1400	1265
	Med-High	1660	1615	1570	1505	1435	1355	1260	1170
	Med-Low	1455	1410	1375	1350	1290	1235	1145	985
155-20	High	1265	1265	1240	1210	1180	1110	995	855
155-24	High	2475	2405	2330	2265	2210	2130	2040	1945
	Med-High	2055	2025	2000	1965	1930	1865	1795	1720
	Med-Low	1725	1720	1705	1685	1665	1630	1585	1525
155-28	High	1500	1515	1510	1500	1480	1460	1415	1370
155-32	High	1900	1845	1780	1705	1620	1530	1445	1320
	Med-High	1695	1645	1580	1520	1460	1385	1280	1155
	Med-Low	1460	1415	1375	1340	1290	1205	1110	—
155-36	High	1275	1260	1245	1230	1180	1135	—	—
155-40	High	—	2210	2130	2055	1980	1895	1795	1680
	Med-High	2015	1975	1925	1880	1805	1735	1655	1555
	Med-Low	1730	1710	1670	1635	1590	1535	1470	1385
155-44	High	1525	1520	1495	1450	1410	1375	1315	1245
155-48	High	—	2145	2060	1975	1905	1800	1680	1565
	Med-High	—	1950	1885	1815	1710	1645	1545	1435
	Med-Low	1730	1695	1660	1600	1540	1465	1400	1305
155-52	High	1520	1500	1460	1410	1360	1310	1245	1155

*Air delivery above 1800 CFM requires that both sides, or a combination of 1 side and bottom, or bottom only of the furnace be used for return air. A filter is required for each return-air supply.

—Indicates unstable operating conditions.

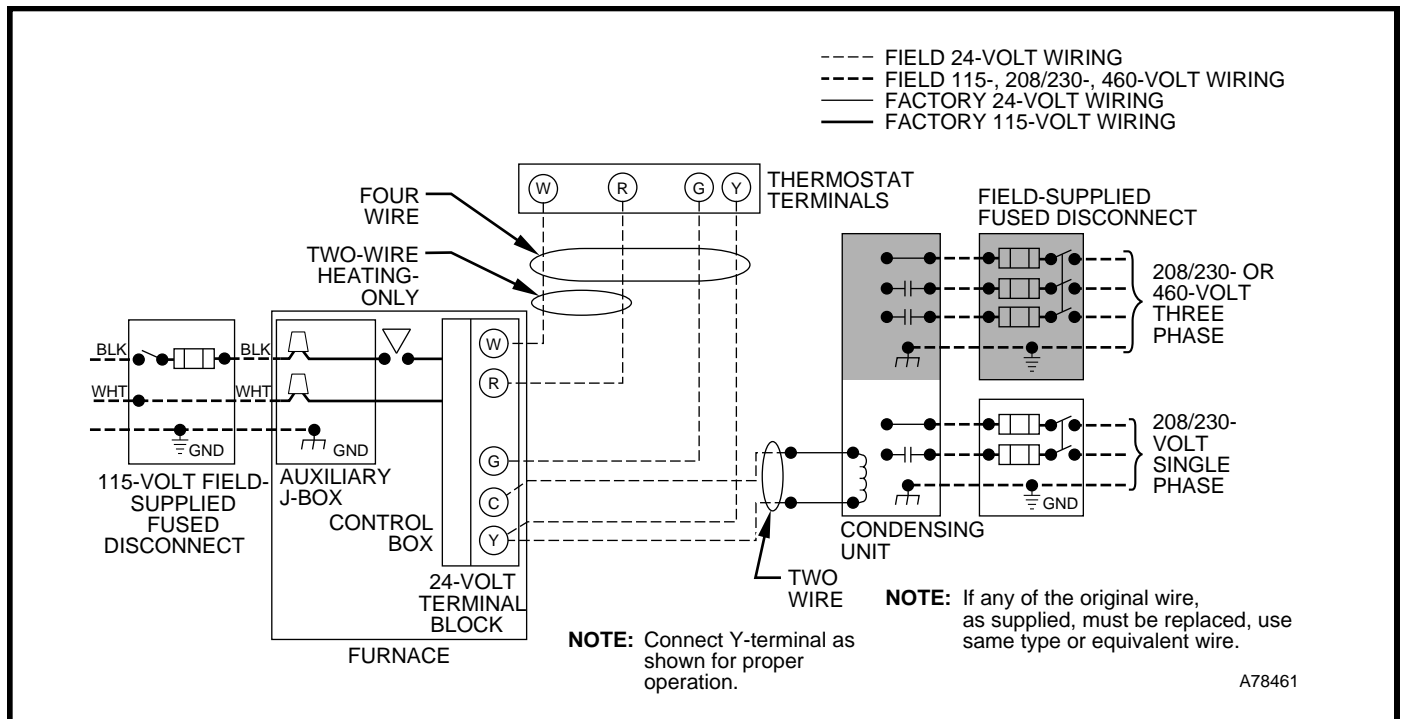
ENERGY EFFICIENCY

UNIT SIZE		045		070		081		111			136		155
		08	12	08	12	12	16	12	16	20	16	20	20
CAPACITY BTUH*	Nonweatherized ICS	35,000	35,000	53,000	53,000	71,000	71,000	89,000	89,000	89,000	107,000	107,000	124,000
AFUE%*	Nonweatherized ICS	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0

* Capacity and AFUE in accordance with U.S. Government DOE test procedures.

ICS—Isolated Combustion System

Typical wiring schematic



Electrical data

UNIT SIZE	045-08	045-12	070-08	070-12	091-14	091-16	111-12	111-16	111-20	136-16	136-20	155-20
UNIT VOLTS — HERTZ — PHASE	115 — 60 — 1											
MINIMUM WIRE SIZE	14	14	14	14	14	14	14	14	12	14	12	12
MAXIMUM WIRE LENGTH (Ft)*	47	34	47	32	31	27	35	28	31	28	33	31
MAXIMUM UNIT AMPS	6.0	8.3	5.9	8.7	9.0	10.4	8.0	10.1	14.4	10.1	13.3	14.0
OPERATING VOLTAGE RANGE (Min—Max)†	104—127											
MAX FUSE SIZE OR HACR-TYPE CKT BKR (Amps)‡	15	15	15	15	15	15	15	15	20	15	20	20
TRANSFORMER (24v)	40va											
EXTERNAL CONTROL POWER AVAILABLE Heating	12va											
Cooling	35va											
AIR CONDITIONING BLOWER RELAY	Standard											

* Length shown is as measured 1 way along wire path between unit and service panel for maximum 2% voltage drop.

† Permissible limits of the voltage range at which the unit will operate satisfactorily.

‡ Time-delay fuse is recommended.

Typical installations

